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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/781,284	02/18/2004	Floyd Backes	160-032	2061

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EXAMINER	
PHILPOTT, JUSTIN M	

ART UNIT	PAPER NUMBER
2616	

DATE MAILED: 10/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/781,284	BACKES ET AL.	
	Examiner	Art Unit	
	Justin M. Philpott	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *02 August 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-10* is/are pending in the application.

4a) Of the above claim(s) *6-10* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-5* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed August 2, 2006 with respect to claims 1-5 have been considered but are moot in view of the new ground(s) of rejection. Specifically, the newly added limitations of claims 1-3 are taught by the newly cited art of Wheatley as discussed in the following office action.

Claim Objections

2. Claim 3 is objected to because of the following informalities: "AP loading" (line 4) should be changed to "access point (AP) loading" to clarify claim language. Appropriate correction is required.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Application Publication No. US 2003/0036374 by English et al. in view of U.S. Patent No. 6,693,915 to Lappetelainen et al., further in view of U.S Patent No. 6,850,499 to Wheatley, III et al.

Regarding claim 1, English teaches an apparatus included in a wireless device (e.g., mobile node 902a, see FIGS. 9 and 10) in a wireless communications environment including access points (e.g., 904a-904c) and stations (e.g., 902a-902b), wherein stations gain access by associating with one of the access points, comprising: logic for associating the wireless device with a current access point (e.g., see paragraph 0170, particularly lines 9-17 regarding mobile node 902a associating with one of access points 904a or 904b); logic for ascertaining whether the wireless device should attempt to associate with an alternative access point (e.g., see paragraph 0170, particularly lines 9-17 regarding mobile node 902a makes the decision of which access point 904a or 904b to associate with); and logic for requesting association with the alternative access point if it is ascertained that the wireless device should attempt to associate with the alternative access point (e.g., see paragraph 0180 regarding the handoff of communications to a new access point; see also generally paragraphs 0146-0181).

However, English may not specifically disclose the ascertaining is based at least in-part on signal strengths of transmissions from the current and alternative access points.

Lappetelainen, like English, also teaches stations gain network access by associating with one a plurality of access point (e.g., see col. 5, line 53 – col. 6, line 29 regarding access points AP1 and AP2 and corresponding communications), and further, specifically teaches ascertaining based at least in-part on the signal strength of transmissions from current and alternative access points (e.g., see col. 12, lines 21-26 regarding selection of access point having "the greatest signal strength" measured). Additionally, the teachings of Lappetelainen provide access point association devices and methods which increase the utilization ratio of each data transmission channel (e.g., see col. 5, lines 12-14) and reduce interference to a level lower than conventional

prior art systems (e.g., see col. 5, lines 15-18) without requiring complex algorithms (e.g., see col. 5, lines 18-20). Thus, at the time of the invention it would have been obvious to one of ordinary skill in the art to apply the access point association teachings of Lappetelainen to the access point association in the invention of English in order to provide an increased utilization ratio of each data transmission channel (e.g., see col. 5, lines 12-14) and reduced interference that is at a level lower than conventional prior art systems (e.g., see col. 5, lines 15-18), all without requiring complex algorithms (e.g., see col. 5, lines 18-20).

However, English in view of Lappetelainen may not specifically disclose ascertaining based on a level of attenuation of signal strength where the alternate access point transmits at less than full power.

Wheatley, like English and Lappetelainen, teaches stations gain network access by associating with one a plurality of access point (e.g., see abstract). Further, Wheatley teaches ascertaining based on a level of attenuation of signal strength where the alternate access point transmits at less than full power (e.g., see col. 11, line 50 – col. 14, line 28; and specifically, see col. 11, line 65 – col. 12, line 4 regarding "the excess C/I [,signal-to-noise-and-interference ratio,] measurement is used to reduce the transmit power on the traffic channel commensurate with the excess C/I measurement"). Additionally, the teachings of Wheatley provide increased efficiency and throughput, and decreased losses due to lower transmit power requirements (e.g., see col. 2, line 14 – col. 3, line 34). Thus, at the time of the invention it would have been obvious to one of ordinary skill in the art to apply the teachings of Wheatley to the that of English in view of Lappetelainen in order to provide increased efficiency and throughput, and

decreased losses due to lower transmit power requirements (e.g., see Wheatley at col. 2, line 14 – col. 3, line 34).

Regarding claim 2, English teaches logic for automatically collecting information about the alternative access point (e.g., see paragraph 0178 regarding mobile node 902 being informed about information regarding access points 904a, 904b and 904c; and also paragraphs 0076, 0100, 0141 and 0163 regarding channels). Further, Wheatley teaches collecting an indication of the level of attenuation (e.g., see col. 11, line 50 – col. 14, line 28; and specifically, see col. 11, line 65 – col. 12, line 4 regarding "Access Terminal reports to the Access Point the excess C/I estimate for the selected rate" and "the excess C/I [,signal-to-noise-and-interference ratio,] measurement is used to reduce the transmit power on the traffic channel commensurate with the excess C/I measurement"). Additionally, as discussed above, the teachings of Wheatley provide increased efficiency and throughput, and decreased losses due to lower transmit power requirements (e.g., see col. 2, line 14 – col. 3, line 34). Thus, at the time of the invention it would have been obvious to one of ordinary skill in the art to apply the teachings of Wheatley to the that of English in view of Lappetelainen in order to provide increased efficiency and throughput, and decreased losses due to lower transmit power requirements (e.g., see Wheatley at col. 2, line 14 – col. 3, line 34).

Regarding claim 3, English teaches logic for ascertaining that the wireless device should attempt to associate with the alternative access point if the alternative access point is closer than the current access point (e.g., see paragraphs 0170-0180 regarding mobile node 902 determining which access point to associate with based upon proximity to the access points). Further, Wheatley teaches associating in terms of a biased distance which accounts for access point

loading (e.g., see col. 4, lines 27-30 regarding "C/I ... is a function of the location of the user within the coverage area"). Additionally, as discussed above, the teachings of Wheatley provide increased efficiency and throughput, and decreased losses due to lower transmit power requirements (e.g., see col. 2, line 14 – col. 3, line 34). Thus, at the time of the invention it would have been obvious to one of ordinary skill in the art to apply the teachings of Wheatley to the that of English in view of Lappetelainen in order to provide increased efficiency and throughput, and decreased losses due to lower transmit power requirements (e.g., see Wheatley at col. 2, line 14 – col. 3, line 34).

Regarding claim 4, English teaches calculating a first biased distance between the wireless device (e.g., mobile node 902) and the alternative access point based on "x" samples (e.g., see paragraphs 0167-0168 and 0175 regarding the impulse radio unit 1016 within mobile node 902 triangulating the current position of the mobile node 902, inherently comprising three or more samples); calculating a second biased distance between the wireless device and the alternative access point based on "y" samples (e.g., see paragraphs 0175-0180 regarding mobile node 902 estimating such a distance by comparing the current position of the mobile node 902 with a map generated in step 1104 of FIG. 11 which comprises the position of a different access point such as 904b or 904c) where "y" (e.g., known position of mobile node 902 and known position of access point 904b) is less than "x" (e.g., three of more samples for triangulating the current position of mobile node 902); and ascertaining that the alternative access point is closer than the current access point if the second biased distance is less than the first biased distance (e.g., see paragraphs 0164-0181, particularly paragraphs 0170 and 0175-0180 regarding mobile node 902 determining which access point to associate with).

Regarding claim 5, English teaches requesting association by sending a message to the alternative access point (e.g., see paragraph 0171 regarding mobile node 902a deciding to associate with a different access point and handing off communications to the different access point after authenticating with the different access point).

Double Patenting

5. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

6. A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

7. Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

8. Claims 1-5 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-6 of copending Application Nos. 10/780,775; 10/780,804; 10/781,157; 10/781,214; 10/781,250; and 10/781,121. Although the conflicting claims are not identical, they are not patentably distinct from each other because each recite either identical or substantially the same limitations as discussed in the following.

Specifically, Application No. 10/780,775 comprises independent claim 1 which is essentially just a broader version of claim 1 of the instant application, whereby the primary difference is that the latter application refers to "transmission power level" while the instant

application refers to "signal strength of transmissions". At the time of the invention it would have been obvious to one of ordinary skill in the art to select ascertaining based upon transmission power level instead of ascertaining based upon signal strength of transmissions since one of ordinary skill in the art readily recognizes that adjusting the signal strength of transmissions implicitly results in a proportional adjustment of the transmission power level.

Additionally, the claims of Application Nos. 10/781,121 and 10/781,250 are identical to claims 1-5 of the instant application with the exception that the preamble of the claims of the latter application recites a "program product" whereas the preamble of the claims of the instant application recites a "method", and the instant application presently includes the additional limitation of "operating on a first channel". At the time of the invention it would have been obvious to one of ordinary skill in the art to utilize a program product for performing a method since one of ordinary skill in the art readily recognizes that a program product may advantageously perform steps of a method in order to provide a functional operation. Furthermore, Examiner takes official notice that it is well known in the art that a plurality of access points may operate on the same channel, and thus, at the time of the invention it would have been obvious to one of ordinary skill in the art to operate the access points on a first channel since it is well known in the art that a plurality of access points may operate on the same channel.

Further, the claims of Application No. 10/780,804 and 10/780,214 are identical to claims 1-5 of the instant application with the exception that the latter applications include the additional language of "logic for", and the instant application presently includes the additional limitation of "operating on a first channel". At the time of the invention it would have been obvious to one of

ordinary skill in the art to implement steps of an invention within logic since one of ordinary skill in the art readily recognizes that it is well known in the art to implement steps of invention with logic in order to perform the invention. Furthermore, Examiner takes official notice that it is well known in the art that a plurality of access points may operate on the same channel, and thus, at the time of the invention it would have been obvious to one of ordinary skill in the art to operate the access points on a first channel since it is well known in the art that a plurality of access points may operate on the same channel.

Finally, the claims of Application No. 10/781,157 are identical to the claims of the instant application with the exception that the instant application presently includes the additional limitation of "operating on a first channel". As discussed above, Examiner takes official notice that it is well known in the art that a plurality of access points may operate on the same channel, and thus, at the time of the invention it would have been obvious to one of ordinary skill in the art to operate the access points on a first channel since it is well known in the art that a plurality of access points may operate on the same channel.

9. This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Conclusion

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Justin M. Philpott whose telephone number is 571.272.3162. The examiner can normally be reached on M-F, 9:00am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham can be reached on 571.272.3179. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Justin M. Philpott

CHI PHAM
SUPERVISORY PATENT EXAMINER 10/16/06